DOCUMENT RESUME

ED 368 023 CS 508 534

AUTHOR Smith, Sandi W.; And Others
TITLE The Prototypical Features of the Outstanding Professor from the Female and Male Undergraduate Perspective: The Roles of Verbal and Nonverbal Communication.
PUB DATE Feb 94
NOTE 34p.; Paper presented at the Annual Meeting of the Western States Communication Association (San Jose, CA, February 23-27, 1994).
PUB TYPE Speeches/Conference Papers (150) -- Reports - Research/Technical (143)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS *College Faculty; Communication Research; Higher Education; Nonverbal Communication; Sex Differences; *Student Attitudes; *Student Evaluation of Teacher Performance; *Teacher Behavior; Teacher Characteristics; Undergraduate Students; Verbal Communication
IDENTIFIERS *Communication Behavior

ABSTRACT

A study determined the prototypical features of outstanding professors from the undergraduate student perspective (including verbal and nonverbal behaviors of outstanding professors) and whether female students placed different ranks on the prototypical features of the outstanding professors. The prototypical features of outstanding, or ideal, professors from the undergraduate student perspective included the general categories of class, interpersonal, and personal characteristics. Eleven more specific verbal and nonverbal communication behaviors were included in the 24-feature prototype of the outstanding professor generated by the 108 students registered in an upper-division communication class at a large midwestern university. They include: being a good speaker; encouraging interaction; movement; paralinguistics; giving and requesting feedback; going beyond the lecture by providing examples and stories; eye contact; smiling; appearance; use of time; and nonverbal decoding ability. Female and male students differed in the ranks they assigned to both general and specific prototypical features of outstanding professors. Five tables of data are included. (Contains 34 references.) (Authors/RS)

The Prototypical Features of the Outstanding Professor from the Female and Male Undergraduate Perspective: The Roles of Verbal and Nonverbal Communication

Sandi W. Smith

Cheri Lynn Medendorp

Susan Ranck

Kelly Morrison

Jenifer Kopfman

Michigan State University

All correspondence should be directed to the first author at the Department of Communication, Michigan State University, East Lansing, MI 48824.

Running Head: Prototypical Features

The Prototypical Features of the Outstanding Professor from the Female and Male Undergraduate Perspective: The Roles of Verbal and Nonverbal Communication

Abstract

Our goals in this research were to determine the prototypical features of outstanding professors from the undergraduate student perspective, to include verbal and nonverbal behaviors of outstanding professors in this analysis, and to determine if female and male students place different ranks on these prototypical features of outstanding professors. The prototypical features of outstanding, or ideal, professors from the undergraduate student perspective included the general categories of class, interpersonal, and personal characteristics. Eleven more specific verbal and nonverbal communication behaviors were included in the twenty-four feature prototype of the outstanding professor generated by the entire sample of respondents. They include: being a good speaker, encouraging interaction, movement, paralinguistics, giving and requesting feedback, going beyond the lecture by providing examples and stories, eye contact, smiling, appearance, use of time, and nonverbal decoding ability. Female and male students were found to differ in the ranks they assigned to both general and specific prototypical features of outstanding professors.

There is a current national movement to strike a balance between teaching and research at four-year colleges and universities. This movement should be welcomed by professors at these institutions as it has been determined that their most highly ranked professional goal is to be a good teacher. While there are other ways to evaluate teaching, by far the most widespread method is to obtain ratings from students. It can be argued that these ratings are based on students' prototypical conceptions of outstanding professors. Previous research on categories of students' evaluations of excellent professors can be reframed as prototypical features of outstanding professors. However, these categories, or features, lack specificity when analyzing the specific verbal and nonverbal behaviors of outstanding professors. It also has been determined that female and male students tend to place differential ranks on these categories, or features, of outstanding professors. Our goals in this research are to provide a prototype analysis that includes more specific communication abilities and behaviors of outstanding professors, and to determine if female and male students place different ranks on these prototypical features of outstanding professors.

The Importance of Good Teaching at Four-Year Colleges and Universities

A national emphasis to strike a balance between teaching and research at four-year colleges and universities was articulated in a 1990 report issued by the Carnegie Foundation for the Advancement of Teaching which was titled "Scholarship Revisited: Priorities of the Professoriate." The movement, which urges rewards related to teaching for professors, has both idealistic and pragmatic goals. The ideal is to better serve students, but the pragmatic goals include financial rewards and higher public esteem for

four-year colleges and universities. These institutions, which have traditionally rewarded research at the exclusion of teaching, have been criticized by students, parents, state legislatures, and the public at-large for their failure to provide high-quality instruction to undergraduates. Several methods to improve instruction are currently in place. While eight states currently have legislation detailing faculty teaching workloads and six other states are consideration such legislation, the University of Florida has put an incentive system into place. One hundred sixty-five of it's top ranked teachers will receive a $5,000 increase in their base salaries this year in order to promote good teaching (Kelly, 1993). The goals of increased enrollment, state funds, and public esteem, as well as improved teaching, are therefore interwoven in the effort to strike a balance between teaching and research at four-year colleges and universities (Mooney, 1992).

Research on the professional goals noted as essential or very important by professors in four-year colleges and universities indicates that a change to reward teaching more highly would reflect the priorities of professors themselves. While 97.6% and 95.5% of professors at public and private universities and 98.3% and 99% of professors at public and private four-year colleges, respectively, rated being a good teacher as an essential or very important professional goal, only 76.8, 85.2, 61.0, and 54.2 % of these same groups, respectively, rated engaging in research as an essential or very important professional goal (Chronicle of Higher Education Almanac, 1993). Therefore, it is clear that good teaching is a goal which professors strive to provide and students, parents, state legislatures, and the public-at-large desire to receive.

Student Ratings of Teaching Performance

Although there are many methods to evaluate teaching at four-year colleges and universities, by far the most widespread method is student ratings of teaching. Most colleges and universities have adopted formal student evaluations of professors' teaching performance in the last two decades (Waters, Kemp, & Pucci, 1988). The importance of these student ratings is indicated by the variety of academic situations in which they are utilized. Student ratings are used for multiple purposes: to give feedback to individual instructors so that they can improve their teaching performance, in personnel decisions about tenure and promotion, and to assist students in choosing courses (Marsh, 1984; McKeachie, 1979; Runco & Thurston, 1987).

The area of student ratings of teaching performance has generated a great deal of research. The main areas of investigation have been validity and reliability of student ratings, and the factors that influence student ratings (McKeachie, 1979). The validity and reliability of this measurement technique have been found to be high in general (Burdsal & Bardo, 1986; McKeachie, 1979; Runco & Thurston, 1987; Waters, et al., 1988). The factors that have been shown to influence student ratings are course and class characteristics, the time when the ratings are collected, student characteristics, and teacher characteristics. The focus of much of this work has been to examine the underlying dimensions of students' perceptions of effective and/or ideal teachers (Burdsal & Bardo, 1986; Feldman, 1976; 1977; 1986; 1988; Freeman, 1988; Goodwin & Stevens, 1993; McKeachie, 1979; Runco & Thurston, 1987; Waters, et al., 1988).

One way to conceptualize the investigation of the underlying dimensions of student perceptions of ideal professors is to employ the concept of a cognitive prototype.

Cognitive Prototypes of Ideal Professors

A cognitive perspective on student ratings of college and university teachers focuses on the representation and utilization of students' knowledge of teachers stored in cognitive structures. From this viewpoint, it is important to determine the content of the cognitive category of the ideal professor as it is likely that this content will be brought to bear on judgments of the teaching effectiveness of all professors. As such, the content of the category of the ideal professor serves as a standard of comparison.

The set of features most commonly associated with category membership is called a prototype , and it is abstracted from different specific instances of the category (Cantor, Mischel, & Schwartz, 1982a; 1982b). For example, one student may have been in a course with a professor who was very enthusiastic and in another course with a professor who was an excellent speaker. Therefore, it is likely that the prototype of this student for the ideal professor will contain the features "enthusiastic" and "good speaker." Prototypes function as standards around which a body of input can be compared. New instances of the category can be compared to the abstracted set of features comprising the prototype, and when a sufficiently high degree of similarity exists between the target features and the abstracted features of the prototype, the perceiver classifies the behavior, situation, or person as an instance of the category represented by the prototype (Cantor & Mischel, 1979; Rumelhart, 1984). To explain this in terms of the example above, suppose the student has a class with a different professor. If the

professor is enthusiastic and a good speaker, it is likely the student will classify the professor as a member of the ideal professor category. If he or she is not perceived to fit one or both of these features, it is likely that he or she will be classified in another category. A cognitive perspective on student ratings of college and university professors highlights the importance of determining the features most commonly associated with the ideal professor.

Prototypical Features of the Ideal Professor

Many lists of student-generated characteristics of "good" or "ideal" teachers at the college and university level have been generated (for example, see Feldman, 1988; Goodwin & Stevens, 1993; Runco & Thurston, 1987; Waters, et al., 1988, and Wotruba & Wright, 1975). These lists of characteristics vary in their level of specificity from the more general to the more specific.

Waters, Kemp, and Pucci (1988) found three broad categories of responses when they asked students to write down those aspects of both excellent and poor teachers that most influenced their evaluations. These categories are: personal characteristics, class characteristics, and interpersonal characteristics. Runco and Thurston (1987) used social validation procedures to determine the categories of college teachers most important to students. The premise of social validation is that criteria should include items and categories that are meaningful and important to the consumers of the product being rated. They found that interpersonal behavior and presentation of class material were the socially valid criteria most meaningful to students. The results of these studies indicates that communication is at the core of these broad and general categories. The

teacher's communication both in class and in interpersonal relationships was shown to affect ratings of teaching in both of these studies. These dimensions can be seen as general features of the prototypical ideal professor from the undergraduate perspective.

Feldman (1988), however, provides an analysis of eighteen studies in which he offers standardized rank orders of eighteen specific instructional dimensions in terms of their importance to students. These dimensions, or prototypical features, in their rank order are: (1) teacher's sensitivity to, and concern with, class level and progress; (2) teacher's preparation and organization of the course; (3) teacher's knowledge of the subject; (4) teacher's stimulation of interest in the course and its subject matter; (5) teacher's enthusiasm; (6) clarity and understandableness; (7) teacher's availability and helpfulness; (8) teacher's concern and respect for students and friendliness of the teacher; (9) perceived outcome or impact of instruction; (10) teacher's fairness, impartiality of evaluation, and quality of examinations; (11) nature and value of the course material, including its usefulness and relevance; (12) teacher's elocutionary skills; (13) nature, quality, and frequency of feedback from teacher to students; (14) teacher's encouragement of questions and discussions, and openness to opinions of others; (15) nature and usefulness of supplementary materials and teaching aids; (16) teacher's intellectual expansiveness and intelligence; (17) intellectual challenge and encouragement of independent thought; and (18) clarity of course objectives and requirements. While category 6, clarity and understandableness; category 12, teacher elocutionary skills; category 13, feedback; and category 14, encouragement of questions and discussions all are communication-based to some extent, these specific categories

do not reflect communication behaviors that would group to form the more general categories of personal characteristics, class characteristics, and interpersonal characteristics discussed above. Because teachers' communication both in class and in interpersonal relationships was found to affect ratings of teaching when the more general categories were assessed, we argue that there is a need for an analysis which breaks down the verbal and nonverbal communication behaviors of ideal professors into more specific categories, or prototypical features. We also argue that these specific communication behaviors need to be ranked within the larger complex of all relevant attitudes, characteristics, and behaviors of the ideal professor from the undergraduate perspective.

Communication Behaviors of the Ideal Professor

Teachers spend much of their teaching-related time in communication activities. They speak and lecture to classes, they listen, and interact interpersonally with students (Rubin & Feezel, 1986). They plan how and what to communicate when they prepare their lectures. Due to the symbiotic nature of the relationship between teaching and communication, communication researchers previously have identified certain verbal and nonverbal communication behaviors which have been shown to impact significantly upon both affective and cognitive learning. Therefore, it is likely that these behaviors could also be assigned as features in students' prototypes of ideal professors.

The verbal behaviors previously associated with increased affective and cognitive learning include: (1) humor; (2) praise; (3) engaging in conversations with students; (4) self-disclosure; (5) eliciting the disclosures of students; (6) asking questions and

encouraging discussion; (7) providing feedback; (8) requesting feedback; (9) indicating openness to other viewpoints and flexibility; (10) inviting students to talk outside of class; and (11) referring to the class as "we" or "ours" (Bell & Daly, 1984; Frymier & Thompson, 1992; Gorham, 1988; McLaughlin, Erikson, & Ellison, 1980; Sorenson, 1989).

The nonverbal behaviors previously associated with increased affective and cognitive learning are: (1) communication at a close distance; (2) smiling; (3) eye contact; (4) direct body orientation; (5) body movement and gestures; (6) touch; (7) relaxed body position; (8) vocal expressiveness; and (9) appearance (Andersen, 1979; Bell & Daly, 1984; Gorham, 1988; Richmond, Gorham, & McCroskey, 1986). The category of listening, which is both verbal and nonverbal, has also been found to relate to increased learning (Bell & Daly 1984; Frymier & Thompson, 1992).

As a result of the previous discussion, we pose the following research question:

RQ[1]: What are the specific communication behaviors that will form prototypical values of the ideal professor, and how will they rank with other specific dimensions of the ideal professor in the undergraduate student view?

Sex Differences in Student Ratings of Professors

In general, research in the area of sex differences of student ratings of professors has examined the relationship between sex of student, sex of professor, and level of rating. Karschak (1978) and Lombardo and Tocci (1979) found that female students rated male and female professors equally, whereas male students rated male professors more highly than female professors, but Ferber and Huber (1975) found the opposite result. Basrow and Silberg (1987) found that both male and female students rated female professors less positively when female and male professors were matched for

type of course, years of teaching experience, and tenure status. While these results highlight the differences in evaluation by female and male students, they do not attempt to discover the prototypical features of the ideal professor from the female and male undergraduate perspective at either the more specific or the more general level. It is important to determine if differences exist in female and male cognitive conceptions of professors, as judgments and evaluations are formed on the basis of prototypical features of ideal professors. Therefore, we pose the following research question:

RQ[2]: Do the more general and more specific prototypical features of ideal professors differ for female and male undergraduates?

Method

Respondents

Respondents were one hundred eight (108) students registered in upper-division communication classes at a large mid-western university who were offered extra-credit for their participation. Thirty-two (32) of the respondents were male, and seventy-six (76) were female. The mean rank of their college standing was 3.64, with 3 assigned to junior status and 4 assigned to senior status. Upper-division students were targeted because they have had more experience with different professors and classes, thus, their prototypes of excellent professors should be larger than those students with less class experience. Respondents were majoring in twenty-four (24) different subjects. This variance in majors was also desired to avoid a bias toward professors in one particular department.

Questionnaire

All respondents were asked to fill out a questionnaire about the qualities of the ideal professor. The questionnaire first asked for the demographic data discussed above. The instructions then read:

> Please take a few minutes to think about your ideal college professor. This may reflect one person, or may be a combination of the qualities of different professors. Keep this ideal image in mind as you answer the following questions. Please answer the questions as completely as you can, providing as detail as possible.

Immediately following these instructions, the question "What qualities do you believe the ideal professor should have?" was posed with lines provided for answers to the bottom of the page. On the next page, the question "What communication skills, both verbal and nonverbal, characterize the ideal professor?" was posed with lines provided for answers to the bottom of the page. This question was included to probe for specific verbal and nonverbal communication behaviors of ideal professors.

Unitizing and Coding of Data

Two coders first unitized and coded 40 questionnaires, or 37% of the responses into the more general categories of personal, interpersonal, and class characteristics following the coding scheme originated by Waters, Kemp, and Pucci (1988). Personal characteristics described personal attributes of the ideal professor in general. Interpersonal characteristics described personal attributes and behaviors of the ideal professor as they relate to interpersonal relationships with students, and class characteristics describe personal attributes and behaviors of ideal professors specifically mentioned as relating to the class. The two coders achieved 98% agreement in unitizing

these responses, and Guetzkow's U was calculated at .0097 (Guetzkow, , 1950). The two coders achieved 90% agreement in coding these responses into personal, interpersonal, and class characteristics, and Cohen's Kappa was .84 (Cohen, 1960). All disagreements between the two coders were resolved at this point, and divergent responses were recoded. All responses were codable in the three category scheme described above.

Next, each of the more general categories above were coded into more specific sub-categories by two coders. Six sub-categories of personal characteristics emerged. They are: enthusiasm, sense of humor, knowledgeable, fairness, interesting, and enjoys teaching. The two coders achieved 94% agreement when coding personal characteristics into these sex sub-categories, and Cohen's Kappa was .92. Four sub-categories of interpersonal characteristics emerged. They are: relates to students as equals, approachable, empathic, and provides and requests feedback. The two coders achieved 91% agreement when coding interpersonal characteristics into these four sub-categories, and Cohen's Kappa was .86.

Finally, fourteen categories of class characteristics emerged. They are: good speaker, goes beyond lecture (by offering examples and stories), encourages interaction, clear and informative, engenders respect, organized, interesting assignments, eye contact, smiling, use of time, paralinguistics, movement, appearance, and nonverbal decoding ability. The two coders achieved 93% agreement when coding class characteristics into these fourteen sub-categories, and Cohen's Kappa was .89. All responses were codable using the twenty-four category scheme described above.

Results

Research Question 1

Research question 1 was posed in order to determine which more specific communication behaviors would form prototypical values of the ideal professor and to determine their ranks relative to the other specific prototypical features of the ideal professor. Table 1 shows category rank, category name, average number of

TABLE 1 ABOUT HERE

instances of a particular category per respondent, and the standard deviation of the average number of instances of a particular category per respondent. This ranking was generated by submitting the data to the nonparametric test for Kendall's W in SPSSX. Kendall's W is a coefficient of concordance which ranks all variables over all of the cases. Kendall's W. indicates no agreement in ranking when it is 0 and complete agreement in ranking when it is 1. Kendall's W in this case was .194, a finding that indicates that there is not substantial overlap in the cognitive prototypes of the ideal professor within the entire sample. It should also be noted that this procedure takes both the average number of instances of a particular category and the standard deviation into account when assigning a category rank. Thus, a category with a lower average number of instances for a particular category and with a lower standard deviation might be assigned a higher rank than a category with a higher number of instances and a higher standard deviation. For example, knowledgeable is ranked more highly than encourages interaction because the average number of instances of the former is .91

and the standard deviation is .83, while the latter has an average number of instances of 1.05 and a standard deviation of 1.05.

As Table 1 indicates, communication behaviors figured prominently in the students' prototypical conceptions of idea professors. Communication categories within the top third of the ranking include: good speaker, encourages interaction, movement, and paralinguistics. Giving and requesting feedback, going beyond the lecture, and eye contact are communication categories in the next third of the ranking, and smiling, appearance, use of time, and nonverbal decoding ability fall in the bottom third of the ranking. Eleven communication categories were included at all levels of prototypical conceptions of ideal professors.

Research Question 2

Research Question 2 was posed to determine if the more general and the more specific prototypical features of professors differ for male and female undergraduates. Table 2 shows the results for the first analysis required to answer this question. The

TABLE 2 ABOUT HERE

rankings for the three more general categories of personal, interpersonal, and class characteristics are given for females and males, and the mean number of instances and standard deviation are given. Kendall's W. was .331 for females and .263 for males. It is interesting to note that although both females and males rank class characteristics most highly, they differ on their second and third ranks. Females rank interpersonal characteristics second and personal characteristics as third, while males reverse these

categories in rank with personal qualities ranking second and interpersonal qualities ranking third.

In order to probe these and other potential significant differences in ranks, the average number of instances of a category were transformed into proportions of total responses in order to account for the fact that females tended to list a slightly higher number of total responses than did males (Female $\underline{M}$ = 15.01, Male $\underline{M}$ = 13.65, $\underline{t}$ (106) = 1.71, n.s.). The proportions of female and male means were then submitted to the SPSSX Mann-Whitney test to determine if significant differences in ranking occurred for females and males. No significant differences were found between female and male students in the proportions of their responses devoted to class characteristics (49%; 47%, respectively; $\underline{Z}$=.62, n.s.) or to interpersonal characteristics (28%; 25%, respectively; $\underline{Z}$= 1.18), however females devoted 23% of their responses to personal characteristics while males devoted 28% to theirs ($\underline{Z}$=-1.99, $\underline{p}$<.05).

Tables 3 and 4 provide the rankings for females and males, respectively, when

TABLES 3 AND 4 ABOUT HERE

they rank the more specific categories of the ideal professor. Kendall's W. was .204 for females and .231 for males. Thus, the measure of concordance in ranking increased from .194 for the entire sample when ranking within sex. It is apparent from these tables that both females and males highly value professors' personal characteristics of knowledge and enthusiasm, the interpersonal characteristic of empathy, and the class characteristics being a good speaker, encouraging interaction, and using paralinguistics as these qualities are common across the top third of both females' and males' rankings.

Females, however, rank the interpersonal characteristic of being approachable and the class characteristics of movement within the top third of their prototypes while males do not, and males rank the personal characteristic of having a good sense of humor and the interpersonal characteristic of relating to students as equals within the top third of their prototypes while females do not.

The proportions of female and male means of the more specific categories were then submitted to the SPSSX Mann-Whitney test to determine if significant differences in ranking occurred for females and males. Table 5 shows mean proportions of each category for females and

TABLE 5 ABOUT HERE

males and the Z score difference between the proportions. As noted on the from the results displayed on Tables 3, 4, and 5, the vast majority of the significant differences in ranking for females and males occur in the top third of the prototypical values for the ideal professor. Males rank being knowledgeable, having a good sense of humor, relating to students as equals, and providing interesting assignments significantly more highly than do females, while females rank being approachable significantly more highly than do males.

Discussion

These results have implications for conceptualizing the prototypical features of the ideal professor at the more general and the more specific levels, for the importance of both verbal and nonverbal behaviors of ideal professors, and for sex differences in the prototypes of ideal professors. The more general categories of the ideal professor

include personal, interpersonal, and class characteristics. There is evidence that these general categories are all perceptually salient to undergraduate students because over the entire sample the more specific personal characteristics of knowledgeable and enthusiasm, the interpersonal characteristics of empathy and being approachable, and the class characteristics of being a good speaker, encouraging interaction, using movement, and paralinguistics all ranked within the top third of the prototype. Thus, it is apparent that the three general categories of personal, interpersonal, and class characteristics are salient and important to undergraduate students.

These results also provide evidence for the importance of communication behaviors in the prototype of the ideal professor. Eleven communication categories were included at all levels of prototypical conceptions of ideal professors. Four specific class communication behaviors ranked in the top third of importance in the prototype of the ideal professor across the entire sample. Ideal professors are good speakers, they encourage interaction, move about the room, and vary their paralinguistics. Thus, both verbal and nonverbal communication behaviors are quite important to students. Professors across all disciplines should note this finding, as Feldman (1988) reports that across the results of 18 studies professors rate good elocutionary skills as being of low importance.

It is also interesting to note that students' prototypes of excellent professors contain far more communication behaviors that were noted by Feldman (1988), but fewer than would be expected by a review of the communication literature. Feldman did not specifically mention any nonverbal behaviors, yet this set of respondents indicated that

eye contact, smiling, use of time, paralinguistics, movement, appearance, and nonverbal decoding ability were prototypical features of the ideal professor. The communication literature would suggest that communication at close distance, direct body orientation, touch, and relaxed body position should also be important. Thus, this group of student respondents noted two nonverbal behaviors not previously identified, the use of time and nonverbal decoding ability, but did not find that four nonverbal behaviors previously identified formed prototypical features of the ideal professor. Feldman's verbal communication categories included good elocutionary skills and clarity which equate with the good speaker category here, feedback from teacher to student which is expanded to the gives and receives feedback category here, and encouragement of questions and discussion which is reflected in the category encourages interaction here. The student respondents in this study also noted that going beyond the lecture by providing examples and stories is an important communication practice of the outstanding teacher. These communication practices are reflected in the communication literature, as well. In addition, the communication literature notes that other communication practices lead to increased cognitive and affective learning. Many of these specific practices were mentioned, but they served as indicators of higher-order categories. For instance, engaging in conversations with students and inviting them to talk outside of class combined with other attributes such as friendly, available, and personable to form the category of approachable, and praise and openness to others' views combined with caring and understanding to form the category of empathic. Thus, specific verbal communication practices previously noted in the communication literature sometimes

combined with other attributes to form higher-order prototypical features of ideal professors.

These results also show that female and male students do differ in the importance they place on the more general and more specific prototypical features of the ideal professor. While both females and males ranked class characteristics most highly, they differed in their ranks of interpersonal and personal characteristics. Females valued interpersonal qualities and behaviors more highly than do males. They ranked the general category of interpersonal characteristics more highly and the specific category of being approachable significantly more highly than did males. Males tended to value personal qualities more highly than did females. They ranked both the general category of personal characteristics and the specific categories of being knowledgeable and having a good sense of humor significantly more highly than did females.

The next steps in this type of research should be to create scales that measure students' perceptions of specific professors on these dimensions and to correlate them with student evaluations of teaching performance for these same professors.. This procedure could determine how the prototypical features of the ideal professor are used by students when they rate their professors' teaching performance, and it could be determined which prototypical features are associated with particular dimensions of the evaluations. This type of information should prove invaluable for the vast majority of professors who report that good teaching is their most highly ranked professional goal.

References

Andersen, J. F. (1979). Teacher immediacy as a predictor of teaching effectiveness. In D. Nimmo, (Ed.), Communication yearbook 3 (pp. 534-559). New Brunswick, NJ: Transaction.

Basrow, S. A., & Silberg, N. T. (1987). Student evaluations of College Professors: Are female and male professors rated differently? Journal of Educational Psychology, 79, 308-314.

Bell, R. A., & Daly, J. A. (1984). The affinity-seeking function of communication. Communication Monographs, 51, 91-115.

Burdsal, C. A., & Bardo, J. W. (1986). Measuring students' evaluations of teaching: dimensions of evaluation. Educational and Psychological Measurement, 46, 63-77.

Cantor, N., & Mischel, W. (1979), Prototypes in person perception. In L. Berkowitz (Ed.), Advances in experimental social psychology (Vol 12: pp. 3-52). New York: Academic.

Cantor, N., Mischel, W., & Schwartz, J. (1982a). Social knowledge: Structure, content, use, and abuse. In A. H. Hastorf & A. M. Isen (Eds.), Cognitive social psychology, (pp. 33-72). New York: Elseiver/North-Holland.

Cantor, N., Mischel, W., & Schwartz, J. (1982b). A prototype analysis of situations. Cognitive Psychology, 14, 45-77.

Carnegie Foundation for the Advancement of Teaching (1990). Scholarship reconsidered: Priorities of the professoriate.

Chronicle of Higher Education Almanac (Aug. 25, 1993). Attitudes and activities of full-time faculty members.

Cohen, J. (1960). A coefficient of agreement for nominal scales. Educational and Psychological Measurement, 20, 37-46.

Feldman, K. A. (1976). Grades and college students' evaluations of their courses and teachers. Research in Higher Education, 4, 69-111.

Feldman, K. A. (1977). Consistency and variability among college students in rating their teachers and courses: A review. Research in Higher Education, 6, 223-274..

Feldman, K. A. (1986). The perceived instructional effectiveness of college teachers as related to their personality and attitudinal characteristics: A review and synthesis. Research in Higher Education, 24, 139-213.

Feldman, K. A. (1988). Effective college teaching from the students' and faculty's' view: Matched or mismatched priorities? Research in Higher Education, 28 291-344.

Ferber, M. A., & Huber, J. A. (1975). Sex of student and instructor: A study of student bias. American Journal of Sociology, 80, 949-963.

Freeman, H. R. (1988). Perceptions of teacher characteristics and student judgments of teacher effectiveness. Teaching of Psychology, 15, 158-160.

Frymier, A. B., & Thompson, C. A. (1992). Perceived teacher affinity-seeking in relation to perceived teacher credibility. Communication Education, 41, 388-399.

Goodwin, L. D., & Stevens, E. A., (1993). The influence of gender of university faculty members' perceptions of "good" teaching. Journal of Higher Education, 64, 166-185.

Gorham, J. (1988). The relationship between verbal teacher immediacy behaviors and student learning. Communication Education, 37, 40-53.

Guetzkow, J. (1950). Unitizing and categorizing problems in coding qualitative data. Journal of Clinical Psychology, 6, 47-58.

Karschak, E. (1978). Sex bias in student evaluations of college professors. Psychology of Women Quarterly, 2, 235-243.

Kelly, D. (1993, Sept. 15). Productivity pays for Florida professors. USA Today, 7D.

Lombardo, J. & Tocci, M. E. (1979). Attributions of positive and negative characteristics of instructors as a function of attractiveness and sex of instructor and sex of subject. Perceptual and Motor Skills, 48, 491-494.

Marsh, H. W. (1984), Students' evaluations of university teaching: Dimensionality, reliability, validity, potential biases, and utility. Journal of Educational Psychology, 76, 707-754.

McKeachie, W. J. (1979). Student ratings of faculty: A reprise. Academe, 65, 384-397.

McLaughlin, M. L., Erikson, K. V., & Ellison, M. A. (1980). A scale for the measurement of teachers' affective communication. Communication Education, 29, 21-32.

Mooney, C. J. (March 25, 1992). Syracuse seeks a balance between teaching and research, The Chronicle of Higher Education, 38.

Richmond, V. P., Gorham, J. S., & McCroskey, J. C. (1987). The relationship between selected immediacy behaviors and cognitive learning. In M. L. McLaughlin (ed.), Communication yearbook 10 (pp. 574-590). Beverly Hills, CA: Sage.

Rubin, R. B., & Feezel, J. D. (1986). Elements of teacher communication competence. Communication Education, 35, 254-268.

Rumelhart, D. E. (1984). Schemata and the cognitive system. In R. S. Wyer, Jr. & T. K. Srull (Eds.), Handbook of Social Cognition (Vol. 1, pp. 161-185). Hillsdale, NJ: Erlbaum.

Runco, M. A., & Thurston, B. J. (1987). Students' ratings of college teaching: A social validation. Teaching of Psychology, 14, 89-91.

Sorenson, G. (1989). The relationship among teachers' self-disclosive statements, students' perceptions, and affective learning. Communication Education, 38, 259-276.

Waters, M., Kemp, E., & Pucci, A. (1988). High and low faculty evaluations: Descriptions by students. Teaching of Psychology, 15, 203-204.

Wotruba, T. R. & Wright, P. L. (1975). How to develop a teacher-rating instrument: a research approach. Journal of Higher Education, 46, 653-663.

Table 1

More Specific Categories:

Category Rank, Name, Average Number per Respondent, and Standard Deviation

Category Rank	Category Name	Average Number	Standard Deviation
1	Empathic	1.76	1.52
2	Good Speaker	1.33	1.16
3	Approachable	1.18	1.16
4	Knowledgeable	0.91	0.83
5	Encourages Interaction	1.05	1.17
6	Enthusiasm	0.79	0.89
7	Movement	0.79	0.91
8	Paralinguistics	0.78	0.87
9	Informative	0.66	0.88
10	Sense of Humor	0.58	0.71
11	Fair	0.63	0.92
12	Relates to Students	0.48	0.74
13	Feedback	0.49	0.79
14	Beyond Lecture	0.48	0.79
15	Organized	0.47	0.73
16	Eye Contact	0.37	0.52

Table 1, Continued

Category Rank	Category Name	Average Number	Standard Deviation
17	Enjoys Teaching	0.39	0.64
18	Smiling	0.36	0.6
19	Appearance	0.27	0.56
20	Interesting Assignments	0.28	0.67
21	Interesting	0.19	0.42
22	Time	0.16	0.41
23	Engenders Respect	0.12	0.38
24	Nonverbal Decoding Ability	0.07	0.3

N= 108

Table 2

More General Categories:

Category Rank, Average Number of Instances per Respondent, and Standard Deviation for Females and Males

Females:

Category Rank	Category Name	Average Number	Standard Deviation
1	Class	7.49	3.51
2	Interpersonal	4.13	2.09
3	Personal	3.39	1.96

N=76

Males:

Category Rank	Category Name	Average Number	Standard Deviation
1	Class	6.56	3.07
2	Personal	3.72	1.92
3	Interpersonal	3.37	2.24

N=22

Table 3:

More Specific Categories:

Category Rank, Name, Average Number per Respondent, and Standard Deviation for Females

Category Rank	Category Name	Average Number	Standard Deviation
1	Empathic	1.87	1.58
2	Approachable	1.41	1.21
3	Good Speaker	1.29	1.19
4	Encourages Interaction	1.08	1.14
5	Knowledgeable	0.82	0.83
6	Movement	0.84	0.91
7	Enthusiasm	0.81	0.89
8	Paralinguistics	0.79	0.88
9	Informative	0.66	0.84
10	Fair	0.67	0.96
11	Organized	0.53	0.76
12	Sense of Humor	0.51	0.72
13	Beyond Lecture	0.51	0.86
14	Enjoys Teaching	0.45	0.64
15	Eye Contact	0.39	0.54

Table 3 Continued

Category Rank	Category Name	Average Number	Standard Deviation
16	Smiling	0.38	0.59
17	Relates to Students	0.43	0.79
18	Feedback	0.42	0.79
19	Interesting Assignments	0.37	0.76
20	Appearance	0.26	0.55
21	Interesting	0.16	0.37
22	Time	0.17	0.44
23	Engenders Respect	0.12	0.41
24	Nonverbal Decoding Ability	0.97	0.30

N= 76

Table 4:

More Specific Categories:

Category Rank, Name, Average Number per Respondent, and Standard Deviation for Males

Category Rank	Category Name	Average Number	Standard Deviation
1	Good Speaker	1.44	1.11
2	Empathic	1.52	1.37
3	Knowledgeable	1.12	0.79
4	Sense of Humor	0.78	0.66
5	Encourages Interaction	0.97	1.26
6	Paralinguistics	0.75	0.84
7	Enthusiasm	0.75	0.88
8	Relates to Students	0.59	0.61
9	Feedback	0.66	0.79
10	Approachable	0.62	0.83
11	Movement	0.66	0.91
12	Informative	0.66	0.97
13	Fair	0.53	0.84
14	Beyond Lecture	0.41	0.61
15	Eye Contact	0.31	0.47

Table 4, Continued

Category Rank	Category Name	Average Number	Standard Deviation
16	Smiling	0.31	0.64
17	Organized	0.34	0.65
18	Interesting	0.28	0.52
19	Appearance	0.28	0.58
20	Enjoys Teaching	0.25	0.62
21	Time	0.12	0.34
22	Engenders Respect	0.12	0.34
23	Nonverbal Decoding	0.09	0.3
24	Interesting Assignments	0.06	.25

N= 32

Table 5

Mean Proportion of Each Category for Males and Females and Z Score Difference

Category Name	Proportion for Females	Proportion for Males	Z Score	Significance Level
Empathic	0.05	0.05	0.74	n.s.
Good Speaker	0.08	0.1	-1.77	n.s.
Approachable	0.1	0.4	3.29	<.001
Knowledgeable	0.05	0.08	-2.69	<.01
Encourages Interaction	0.07	0.07	0.23	n.s.
Enthusiasm	0.08	0.08	0.03	n.s.
Movement	0.06	0.04	1.28	n.s.
Paralinguistics	0.05	0.05	-0.22	n.s.
Informative	0.04	0.05	-0.25	n.s.
Sense of Humor	0.03	0.06	-2.57	<.01
Fair	0.05	0.04	0.27	n.s.
Relates to Students	0.02	0.05	-.2.24	<.02
Feedback	0.03	0.05	-.1.80	n.s.
Beyond Lecture	0.03	0.04	-0.08	n.s.

Table 5,

Continued

Category Name	Proportion for Females	Proportion for Males	Z Score	Significance Level
Organized	0.03	0.02	1.34	n.s.
Eye Contact	0.03	0.02	0.58	n.s.
Enjoys Teaching	0.03	0.02	1.79	n.s.
Smiling	0.03	0.02	0.66	n.s.
Appearance	0.02	0.02	0.07	n.s.
Interesting Assignments	0.02	0.04	-2.59	<.001
Interesting Time	0.01	0.02	-1.2	n.s.
Engenders Respect	0.01	0.01	0.16	n.s.
Nonverbal Decoding Ability	0	0.01	0.36	n.s.
	N=76	N=32	0.85	n.s.